

**REMARKS**

The Examiner is thanked for the due consideration given the application. The specification has been amended to insert headings and improve the language. An appendix reproducing page 1 of the drawing, filed September 1, 2006 is appended to this paper.

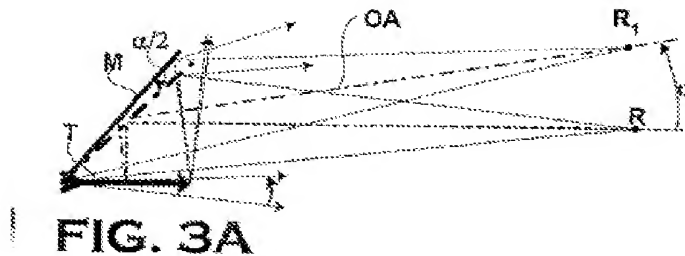
Claims 1-20 remain in this application. Claims 1-14 have been amended to improve the claim language in a non-narrowing fashion. Claim 14 has been amended to properly depend on claim 3. New claims 15-20 set generally forth aspects of the present invention presented in claims 1-5 without using "means" recitations.

No new matter is believed to be added to the application by this amendment.

**Drawings**

The drawings have been objected for lacking feature and a flow chart.

However, the feature  $\alpha$  and  $\alpha/2$  were clearly marked in Figure 3A, which is reproduced below, and the feature is thus not missing in the specification. Please note that two sets of drawings were filed on September 1, 2006, and that the appropriate set of drawings should be referred to (See appendix).



Regarding the block diagram, it is unnecessary to provide the block diagram in this application.

The drawings are thus free from being informalities.

#### **Claim Objection**

Claim 14 has been objected for being informalities. Claim 14 has been amended to properly depend on claim 3 and thus is free from being informalities.

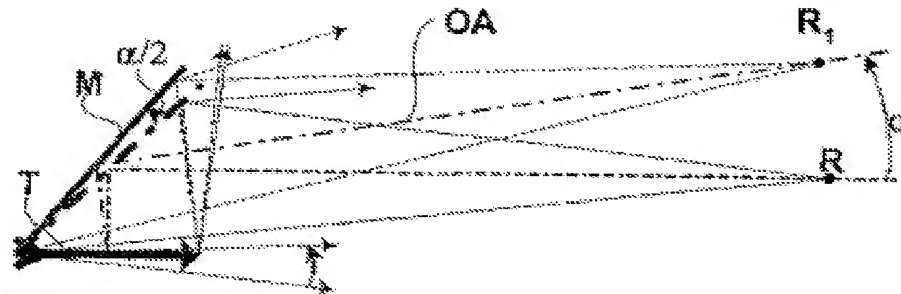
#### **Claim Rejections**

Claims 1-7, 9, and 11-14 have been rejected under 35 U.S.C. 103(a) as being unpatentable over ALDERTON (US Patent 3,635,557) in view of BOCK (US Patent 5,012,275). Claims 8 and 10 have been rejected under 35 U.S.C. 103(a) as being unpatentable over ALDERTON in view of BOCK, and WU et al. (US Patent 5,847,846).

These rejections are respectfully traversed.

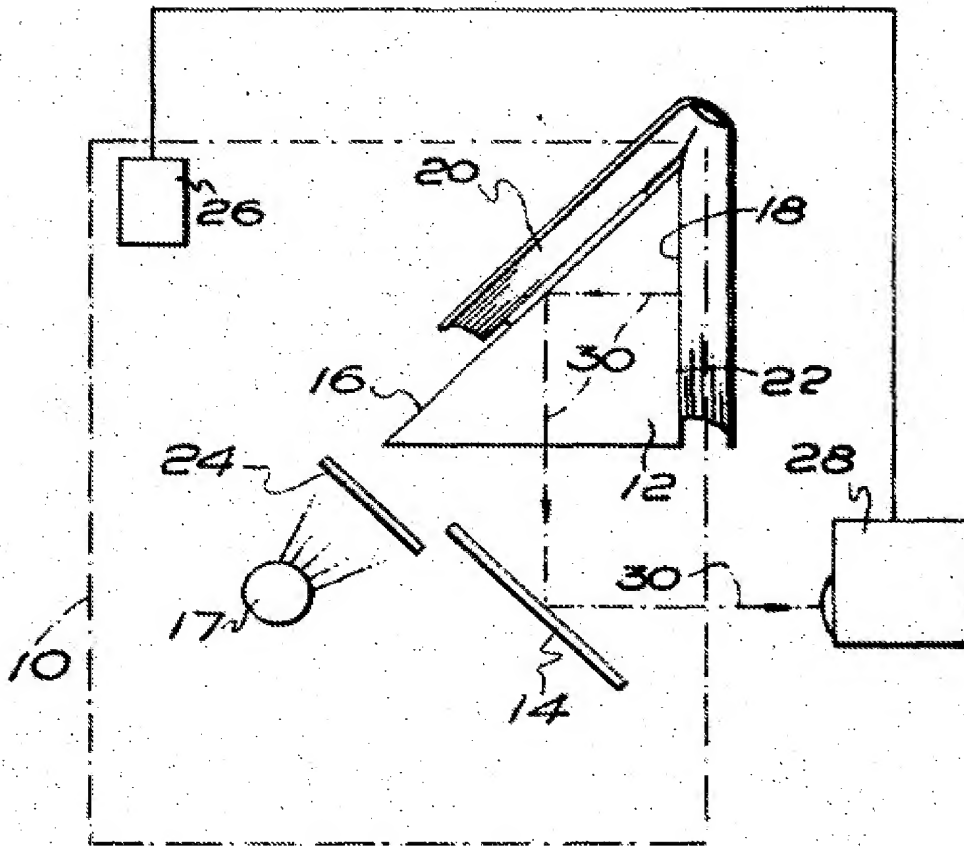
The present invention pertains to a method for imaging a primarily two-dimensional target by an optical unit, a light source and an optical recording device, where the

optical recording device turns  $\alpha$  while the optical unit turns  $\alpha/2$ . By way for example, figure 3A is reproduced again.



**FIG. 3A**

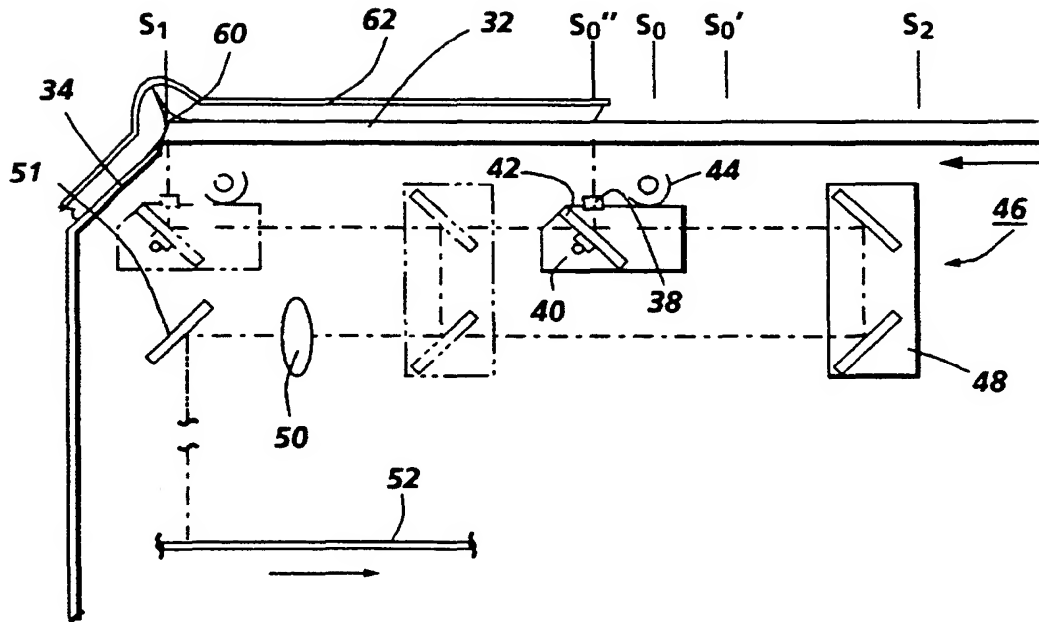
ALDERTON sets forth a device for photographically copying book pages. It can be seen in the sole Figure, which is reproduced below, that a light source is arranged under the prism beside the lower mirror serving via the prism - and optionally through a diffuser - for illumination of the page of the book to be scanned. In ALDERTON, the image of the book is directed to the recorder directly, without turning any element.



The arrangement of ALDERTON, without turning, could produce harmful reflections, and ALDERTON does not in the least deal with this problem. ALDERTON thus neither discloses nor infers any solution to the elimination of such reflections and ghost images.

The Official Action acknowledged that ALDERTON fails to disclose the feature discussed above, but the Official Action then turns to BOCK and asserts that BOCK teaches turning away of the optical recording means at a predetermined angle and half of this angle, resp. in a curved course.

Figure 3 of BOCK is reproduced below.



**FIG. 3**

As can be seen, BOCK relates fundamentally to a photocopier, specifically to an apparatus serving for copying both paper sheets and books, rather one page of a book simultaneously. The disclosure of BOCK also exactly shows the actual operational arrangement of the two main scanning units owing to their shapes and dimensions.

In this connection it is notable that in order to move the scanning carriage foamed from a light source and a scanning mirror as well as the movable mirror carriage for deflecting the image scanned by the scanning mirror in a range sufficient for scanning the whole surface of the document to

be scanned, both movable carriages shall be moved **beyond** the edge of the page, otherwise the edge area of the page remains un-scanned.

On the other hand, in conventional photocopiers - having a copying direction from the right to the left - this can be realized without any problems, as there is enough free space beside the glass plate supporting the page of book to be copied.

However, BOCK is a case where not a flat sheet of paper but pages of a book are to be scanned, then instead of opening the book in an angle of  $180^\circ$  and laying and pressing it down to the glass plate, accompanied by the known disadvantages, the edge region of the copier apparatus is be equipped with a downwardly sloping shelf (element 34 of Figure 3) where the sloping angle shown in the drawing figure is at an angle of  $45^\circ$ , **AND** the scanning process shall be carried out from the left to the right (otherwise, the carriage 40 would impact into the downwardly sloping shelf). As there is almost unlimited free space at the right side of the book to be scanned, both carriages 40 and 48 have sufficient free space to move and stay there.

It can be seen from the description of BOCK that the apparatus has unambiguously been designed for only partly opening of the book, in that manner that the spine of the book lies in the region of the sloping shelf. This, however, causes

especially for bulky volumes that the page of the book does not completely thrust itself against the glass plate (especially at the spine region) so that the scanned image of the page will be distorted.

As a further disadvantage, the region of the page lying at a distance from the glass plate becomes less illuminated than the region pressed onto the glass plate - and the dedicated object of the solution disclosed in Bock was to eliminate this drawback, see col. 3, lines 26 to 35 of BOCK, mentioning the rotation through a small angle.

It should be emphasized that BOCK does not mention any reflections, shadows, ghost images as well as the elimination of such phenomena. On the contrary, BOCK is engaged only with the uniform illumination of the whole page of the book, both its spine-region and its remaining region, and it is proposed that for stronger illumination of the region beside the spine of the book the scanning mirror has to be tilted through a small angle. In order to keep the optical path operational, other mechanical parts of the photocopier must be tilted in an appropriate manner.

BOCK thus fails to address the deficiencies of ALDERTON.

Also, BOCK does not contain any teaching, disclosure or thought urging a person skilled in the art that:

1) to eliminate the formation of reflections and ghost images arising in scanning processes with known book scanners, and

2) how this eliminating shall/should be put into practice.

WU et al. does not address the deficiencies of ALDERTON or BOCK as discussed above. One of ordinary skill and creativity would thus fail to produce a claimed embodiment of the present invention from knowledge of ALDERTON, BOCK, and WU et al. A *prima facie* case of unpatentability has thus not been made.

This rejection is believed to be overcome, and withdrawal thereof is respectfully requested.

### **Conclusion**

The Examiner is thanked for considering the Information Disclosure Statement filed January 3, 2007.

The objections and rejections are believed to have been overcome, obviated or rendered moot, and no issues remain. The issuance of a Notice of Allowability is accordingly respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any



additional fees required under 37 C.F.R. § 1.16 or under 37  
C.F.R. § 1.17.

Respectfully submitted,

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REG/HC/hc

**APPENDIX:**

The Appendix includes the following item:

☒ - Page 1 of drawings recorded on September 1, 2006.

(**NOT** a replacement sheet)